

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/029,905B
Source: IFW/b
Date Processed by STIC: 2/7/05

ENTERED

RAW SEQUENCE LISTING

DATE: 02/07/2005

PATENT APPLICATION: US/10/029,905B

TIME: 08:37:02

Input Set : A:\1 1177 Sequence listing 3.txt

Output Set: N:\CRF4\02072005\J029905B.raw

file://C:\CRF4\Outhold\VsrJ029905B.htm

RAW SEQUENCE LISTING

DATE: 02/07/2005

PATENT APPLICATION: US/10/029,905B

TIME: 08:37:02

Input Set : A:\1_1177 Sequence listing 3.txt

Output Set: N:\CRF4\02072005\J029905B.raw

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63 tcaatttaca cacggtctgt aattgaccct gttcctgcac cagttgggtga ttcacatggt 540
64 gatggtgctg ccaagtcttt agacaaacag aaaaagaaga ctaagatgac agatgaagag 600
65 attatggaga aattaagaac tatcgtgagc ataggtgacc ctaagaaaaa atatacaaga 660
66 tatgaaaaaa ttggacaagg ggcttctggt acagttttca ctgctactga cgttgcactg 720
67 ggacaggagg ttgctatcaa acaaattaat ttacagaaac agccaaagaa ggaactgac 780
68 attaacgaga ttctggtgat gaaagaattg aaaaatccca acatcgtaa ctttttggac 840
69 agttacctgg taggagatga attgtttgtg gtcattggaat accttgctgg gaggtcactc 900
70 actgatgtgg taacagaaac gtgcatggat gaagcacaga ttgctgctgt atgcagagag 960
71 tgtttacagg cattggagtt tttacatgct aatcaagtga tccacagaga catcaaaagt 1020
72 gacaatgtac ttttggaat ggaaggatct gtttaagctca ctgactttgg tttctgtgcc 1080
73 cagatcacc ctagcagag caaacgcagt accatggctg gaacgccata ctggatggca 1140
74 ccagaggtgg ttacacgga agcttatggc cctaaagtgc acatatggtc tctgggtatc 1200
75 atggctattg agatggtaga aggagagcct ccatacctca atgaaaatcc ccttagggcc 1260
76 ttgtacctaa tagcaactaa tggaacccca gaacttcaga atccagagaa actttcccca 1320
77 atatttcggg atttcttaaa tcgatgtttg gaaatggatg tggaaaaaag ggggtcagcc 1380
78 aaagaattat tacagcatcc tttcctgaaa ctggccaaac cgttatctag cttgacacca 1440
79 ctgatcatgg cagctaaaaga agcaatgaag agtaaccgtt aacatcactg ctgtggcctc 1500
80 atactctttt ttccattttc tacaagaagc ctttttagtat atgaaaatta ttactctttt 1560
81 tggggtttaa agaaatggtc tgcataacct gaatgaaaga agcaaatgac tattctctga 1620
82 agacaacca gagaaaattg caaaaagaca agtatgactt ttatatgaac cccttcttta 1680
83 ggtccagaa ggaattgtgg actgaatcac tagccttagg tctttcagca aacagcctat 1740
84 cagggccatt tatcatgtgt gagatttgca ttttactttg ctgactttgt tgtaatatag 1800
85 ccattcatt gtccccttt 1819
88 <210> SEQ ID NO: 4
89 <211> LENGTH: 524
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
93 <400> SEQUENCE: 4
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95 1 5 10 15
97 Arg Met Ser Ser Thr Ile Phe Ser Thr Gly Gly Lys Asp Pro Leu Ser
98 20 25 30
100 Ala Asn His Ser Leu Lys Pro Leu Pro Ser Val Pro Glu Glu Lys Lys
101 35 40 45
103 Pro Arg His Lys Ile Ile Ser Ile Phe Ser Gly Thr Glu Lys Gly Ser
104 50 55 60
106 Lys Lys Lys Glu Lys Glu Arg Pro Glu Ile Ser Pro Pro Ser Asp Phe
107 65 70 75 80
109 Glu His Thr Ile His Val Gly Phe Asp Ala Val Thr Gly Glu Phe Thr
110 85 90 95
112 Gly Met Pro Glu Gln Trp Ala Arg Leu Leu Gln Thr Ser Asn Ile Thr
113 100 105 110
115 Lys Leu Glu Gln Lys Lys Asn Pro Gln Ala Val Leu Asp Val Leu Lys
116 115 120 125
118 Phe Tyr Asp Ser Asn Thr Val Lys Gln Lys Tyr Leu Ser Phe Thr Pro
119 130 135 140
121 Pro Glu Lys Asp Gly Leu Pro Ser Gly Thr Pro Ala Leu Asn Ala Lys
122 145 150 155 160

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124 Gly Thr Glu Ala Pro Ala Val Val Thr Glu Glu Glu Asp Asp Asp Glu
125                               165                               170                               175
127 Glu Thr Ala Pro Pro Val Ile Ala Pro Arg Pro Asp His Thr Lys Ser
128                               180                               185                               190
130 Ile Tyr Thr Arg Ser Val Ile Asp Pro Val Pro Ala Pro Val Gly Asp
131                               195                               200                               205
133 Ser His Val Asp Gly Ala Ala Lys Ser Leu Asp Lys Gln Lys Lys Lys
134                               210                               215                               220
136 Pro Lys Met Thr Asp Glu Glu Ile Met Glu Lys Leu Arg Thr Ile Val
137 225                               230                               235                               240
139 Ser Ile Gly Asp Pro Lys Lys Lys Tyr Thr Arg Tyr Glu Lys Ile Gly
140                               245                               250                               255
142 Gln Gly Ala Ser Gly Thr Val Phe Thr Ala Thr Asp Val Ala Leu Gly
143                               260                               265                               270
145 Gln Glu Val Ala Ile Lys Gln Ile Asn Leu Gln Lys Gln Pro Lys Lys
146                               275                               280                               285
148 Glu Leu Ile Ile Asn Glu Ile Leu Val Met Lys Glu Leu Lys Asn Pro
149                               290                               295                               300
151 Asn Ile Val Asn Phe Leu Asp Ser Tyr Leu Val Gly Asp Glu Leu Phe
152 305                               310                               315                               320
154 Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu Thr Asp Val Val Thr
155                               325                               330                               335
157 Glu Thr Cys Met Asp Glu Ala Gln Ile Ala Ala Val Cys Arg Glu Cys
158                               340                               345                               350
160 Leu Gln Ala Leu Glu Phe Leu His Ala Asn Gln Val Ile His Arg Asp
161                               355                               360                               365
163 Ile Lys Ser Asp Asn Val Leu Leu Gly Met Glu Gly Ser Val Lys Leu
164                               370                               375                               380
166 Thr Asp Phe Gly Phe Cys Ala Gln Ile Thr Pro Glu Gln Ser Lys Arg
167 385                               390                               395                               400
169 Ser Thr Met Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Val Thr
170                               405                               410                               415
172 Arg Lys Ala Tyr Gly Pro Lys Val Asp Ile Trp Ser Leu Gly Ile Met
173                               420                               425                               430
175 Ala Ile Glu Met Val Glu Gly Glu Pro Pro Tyr Leu Asn Glu Asn Pro
176                               435                               440                               445
178 Leu Arg Ala Leu Tyr Leu Ile Ala Thr Asn Gly Thr Pro Glu Leu Gln
179                               450                               455                               460
181 Asn Pro Glu Lys Leu Ser Pro Ile Phe Arg Asp Phe Leu Asn Arg Cys
182 465                               470                               475                               480
184 Leu Glu Met Asp Val Glu Lys Arg Gly Ser Ala Lys Glu Leu Leu Gln
185                               485                               490                               495
187 His Pro Phe Leu Lys Leu Ala Lys Pro Leu Ser Ser Leu Thr Pro Leu
188                               500                               505                               510
190 Ile Met Ala Ala Lys Glu Ala Met Lys Ser Asn Arg
191                               515                               520
194 <210> SEQ ID NO: 5
195 <211> LENGTH: 50
196 <212> TYPE: DNA

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197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
202 <400> SEQUENCE: 5
203 ggggacaagt ttgtacaaaa aagcaggcta tgtctgataa cggagaactg          50
206 <210> SEQ ID NO: 6
207 <211> LENGTH: 53
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
214 <400> SEQUENCE: 6
215 ggggaccact ttgtacaaga aagctggggt taacgggttac tcttcattgc ttc          53
218 <210> SEQ ID NO: 7
219 <211> LENGTH: 31
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
226 <400> SEQUENCE: 7
227 aagaattctc atgtctgata acggagaact g          31
230 <210> SEQ ID NO: 8
231 <211> LENGTH: 29
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
238 <400> SEQUENCE: 8
239 tttctagaac ggttactctt cattgcttc          29
242 <210> SEQ ID NO: 9
243 <211> LENGTH: 3255
244 <212> TYPE: DNA
245 <213> ORGANISM: Homo sapiens
247 <400> SEQUENCE: 9
248 ggagcgcaaa tggcgtccaa ccccgaacgg ggggagattc tgctcacgga actgcagggg 60
249 gattccccgaa gtcttccggt ttctgagaat gtgagtgtctg ttcaaaaatt agacttttca 120
250 gatacaatgg tgcagcagaa attggatgat atcaaggatc gaattaagag agaaataagg 180
251 aaagaactga aaatcaaaga aggagctgaa aatctgagga aagtcacaac agataaaaaa 240
252 agtttggtct atgtagacaa ctttttgaaa aaatcaaata aaaaattaga agaactacat 300
253 cacaagctgc aggaattaaa tgcacatatt gttgtatcag atccagaaga tattacagat 360
254 tgcccaagga ctccagatac tccaaataat gacctcggtt gttctactag caacaataga 420
255 ttgaaggcct tacaaaaaca attggatata gaacttaaag taaaacaagg tgcagagaat 480
256 atgatacaga tgtattcaaa tggatcttca aaggatcgga aactccatgg tacagctcag 540
257 caactgctcc aggacagcaa gacaaaaata gaagtcatac gaatgcagat tcttcaggca 600
258 gtccagacta atgaattggc ttttgataat gcaaaacctg tgataagtc tcttgaactt 660
259 cggatggaag aattaaggca tcattttagg atagagtttg cagtagcaga aggtgcaaag 720
260 aatgtaatga aattacttgg ctccaggaaa gtaacagaca gaaaagcact ttcagaagct 780
261 caagcaagat ttaatgaatc aagtcagaag ttggaccttt taaagtattc attagagcaa 840
262 agattaaacg aagtcccca gaatcatccc aaaagcagga ttattattga agaactttca 900

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263 cttgttgctg catcaccaac actaagtcca cgtcaaagta tgatatctac gcaaaatcaa 960
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265 tgccaagata tcctagagaa tgtccctgga cgggtcaaaag caacatcagt tgcactgcct 1080
266 ggttgagtc caagtgaac cagatcatct ttcattgagca gaacgagtaa aagtaaaagc 1140
267 ggaagtagtc gaaatcttct aaaaaccgat gacttggtcca atgatgtctg tgctgttttg 1200
268 aagctcgata atactgtggt tggccaaact agctggaaac ccatttccaa tcagtcattg 1260
269 gaccagaagt ttacactgga actggacagg tcacgtgaac tggaaatttc agtttatttg 1320
270 cgtgattggc ggtctctgtg tgctgtaaaa tttctgaggt tagaagattt tttagacaac 1380
271 caacggcatg gcatgtgtct ctatttgga ccacagggtta ctttatttgc agaggttacc 1440
272 ttttttaatc cagttattga aagaagacca aaacttcaaa gacaaaagaa aattttttca 1500
273 aagcaacaag gcaaaacatt tctcagagct cctcaaatga atattaatat tgccacttgg 1560
274 ggaaggctag taagaagagc tttcctaca gtaaatcatt ctggcacctt cagccctcaa 1620
275 gtcctgtgct ctactacagt gccagtgtgt gatgtacgca tccctcaact agcacctcca 1680
276 gctagtgtat ctacagtaac caaattggac tttgatcttg agcctgaacc tcctccagcc 1740
277 ccaccacgag cttcttctct tggagaaata gatgaatctt ctgaattaag agttttggat 1800
278 ataccaggac aggtttcaga gactgttttt gatattcaga atgacagaaa tagtatactt 1860
279 ccaaaatctc aatctgaata caagcctgat actcctcagt caggcctaga atatagtgg 1920
280 attcaagaac ttgaggacag aagatctcag caaaggtttc agtttaattc acaagatttc 1980
281 aggtgttgtg ctgtcttggg aagaggacat tttggaaaag tgcttttagc tgaatataaa 2040
282 aacacaaatg agatgtttgc tataaaagcc ttaaagaaaag gagatattgt ggctcgagat 2100
283 gaagtagaca gcctgatgtg tgaaaaaaga atttttgaaa ctgtgaatag tgtaaggcat 2160
284 cccttttttg tgaacctttt tgcattgttt caaaccaaaag agcatgtttg ctttgtaatg 2220
285 gaatatgctg ccggtgggga cctaattgat cacattcata ctgatgtctt ttctgaacca 2280
286 agagctgtat tttatgctgc ttgtgtagtt cttgggttgc agtatttaca tgaacacaaa 2340
287 attgtttata gagatttgaa attggataac ttattgctag atacagaggg ctttgtgaaa 2400
288 attgctgatt ttggtctttg caaagaagga atgggatatg gagatagaac aagcacattt 2460
289 tgtggcactc ctgaatttct tgccccagaa gtattaacag aaacttctta tacaagggct 2520
290 gtagatttgt ggggccttgg cgtgcttata tatgaaatgc ttgtttgtga gtctcccttt 2580
291 cctggtgatg atgaagagga agtttttgac agtattgtaa atgatgaagt aaggtatcca 2640
292 aggttcttat ctacagaagc cttttctata atgagaaggc tgtaagaag aaatcctgaa 2700
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294 ctaattgatt ggagcgtctc gatggacaaa aaagtaaagc caccatttat acctaccata 2820
295 agaggacgag aagatgttag taattttgat gatgaattta cctcagaagc acctattctg 2880
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297 gactacattg ctgatttgtg ttaagttgct agacactgct aaaccaagct gactcacaag 3000
298 aagacctctt aaaaatagca acccttcatt tgctctctgt gccaccaata gcttctgagt 3060
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302 tcaatagtct atttt 3255
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306 <211> LENGTH: 984
307 <212> TYPE: PRT
308 <213> ORGANISM: Homo sapiens
310 <400> SEQUENCE: 10
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312 1 5 10 15
314 Gly Asp Ser Arg Ser Leu Pro Phe Ser Glu Asn Val Ser Ala Val Gln
315 20 25 30

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VERIFICATION SUMMARY

DATE: 02/07/2005

PATENT APPLICATION: US/10/029,905B

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Input Set : A:\1_1177 Sequence listing 3.txt

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